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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,710	02/06/2002	Anees Narsinh	45390/JEC/X2/134069	9204

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ALCATEL INTERNETWORKING SYSTEM, INC.
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EXAMINER

MOLINARI, MICHAEL J

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 12/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,710

Applicant(s)

NARSINH ET AL.

Examiner

Michael J Molinari

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kilkki (U.S. Patent No. 6,047,326) in view of Rom et al. (U.S. Patent No. 6,252,849).

3. Referring to claim 1, Kilkki discloses a data communication node forwarding inbound packets, the node comprising: an access controller receiving an inbound packet and classifying the packet, the access controller determining whether the packet is to be admitted into the node or not based on congestion status data determined from the classification information (see column 7, lines 28-42). Kilkki differs from claim 1 in that he fails to disclose a switching controller. However, the use of a switching controller for managing output from a network device is old and well known in the art. For example, Rom et al. disclose a switching controller (Switch, see Figure 2, #205) coupled to an access controller, the switching controller receiving the admitted inbound packet from the access controller for further classifying the packet, the switching controller determining whether the packet is to be forwarded to a destination address or not based on additional congestion status data determined from additional classification information (see column 4, line 6 to column 5, line 36), which has the advantage of fairly allocating network resources (see column 1, lines 26-32). One skilled in the art would have

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recognized the advantage of the switching controller as taught by Rom et al. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the use of a switching controller as taught by Rom et al. into the invention of Kilkki to achieve the advantage of fairly allocating network resources.

4. Referring to claim 2, Kilkki discloses that the access controller is a media access controller (See column 5, lines 11-24 and 43-44).

5. Referring to claim 3, Kilkki discloses that the classification information includes a priority associated with the inbound packet (see column 5, lines 43-47).

6. Referring to claim 4, Kilkki discloses that the access controller gives precedence in admitting packets associated with a first priority over packets associated with a second priority (see column 5, lines 43-47 and column 6, lines 40-54).

7. Referring to claim 5, Kilkki discloses that the access controller includes a data buffer storing admitted inbound packets (see column 3, lines 50-62 and column 7, lines 28-42).

8. Referring to claim 6, Kilkki discloses that the congestion status data includes a buffer utilization level, the access controller admitting the inbound packet if the utilization level is lower than a predetermined threshold level (see column 7, lines 28-42, column 8, lines 23-38, and column 15, line 48 to column 16, line 3).

9. Referring to claim 7, Kilkki discloses that the congestion status data includes a buffer utilization level, the access controller discarding the inbound packet if the utilization level is higher than a predetermined threshold level (see column 7, lines 28-42, column 8, lines 23-38, and column 15, line 48 to column 16, line 3).

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10. Referring to claim 8, Kilkki discloses that the access controller discards the inbound packet based on a discard probability that varies based on the classification information (see column 15, line 48 to column 16, line 3 and column 18, line 57 to column 19, line 12).

11. Referring to claim 9, Kilkki disclose an access controller in a data communication node comprising: an input receiving an inbound packet; a classification engine coupled to the input classifying the inbound packet (see column 7, lines 28-42); a buffer storing admitted inbound packets (see column 7, lines 28-42); and a disposition engine coupled to the classification engine and the buffer, the disposition engine receiving the classification information and determining whether the inbound packet is to be admitted or not based on a utilization level of the buffer determined from the classification information (see column 7, lines 28-42, column 8, lines 23-38, and column 15, line 48 to column 16, line 3). Kilkki differs from claim 9 in that he fails to disclose the disposition engine delivering the inbound packet to a switching controller if the packet is admitted. However, the use of a switching controller for managing output from a network device is old and well known in the art. For example, Rom et al. disclose delivering the inbound packet to a switching controller (Switch, see Figure 2, #205 and see column 4, line 6 to column 5, line 36), which has the advantage of fairly allocating network resources (see column 1; lines 26-32). One skilled in the art would have recognized the advantage of the switching controller as taught by Rom et al. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the use of a switching controller as taught by Rom et al. into the invention of Kilkki to achieve the advantage of fairly allocating network resources.

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12. Referring to claim 10, Kilkki discloses that the classification information includes a priority associated with the inbound packet (see column 5, lines 43-47).
13. Referring to claim 11, Kilkki discloses that the disposition engine gives precedence in admitting packets associated with a first priority over packets associated with a second priority (see column 5, lines 43-47 and column 6, lines 40-54).
14. Referring to claim 12, Kilkki discloses that the disposition engine admits the inbound packet if the utilization level of the buffer is lower than a predetermined threshold level (see column 7, lines 28-42, column 8, lines 23-38, and column 15, line 48 to column 16, line 3).
15. Referring to claim 13, Kilkki discloses that the disposition engine discards the inbound packet if the utilization level of the buffer is higher than a predetermined threshold level (see column 7, lines 28-42, column 8, lines 23-38, and column 15, line 48 to column 16, line 3).
16. Referring to claim 14, Kilkki discloses that the disposition engine discards the inbound packet based on a discard probability that varies based on the classification information (see column 15, line 48 to column 16, line 3 and column 18, line 57 to column 19, line 12).
17. Referring to claim 15, Kilkki discloses a method for packet traffic management in a data communication node including an access controller, the method comprising: at the access controller: receiving an inbound packet; classifying the inbound packet (see column 7, lines 28-42); determining congestion status data from the classification information (see column 7, lines 28-42, column 8, lines 23-38, and column 15, line 48 to column 16, line 3); and admitting the inbound packet or not based on the congestion status data (see column 7, lines 28-42, column 8, lines 23-38, and column 15, line 48 to column 16, line 3). Kilkki differs from claim 15 in that he fails to disclose the use of a switching controller that determines whether the admitted packet is

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to be forwarded to a destination address. However, the use of a switching controller for managing output from a network device is old and well known in the art. For example, Rom et al. disclose delivering the inbound packet to a switching controller (Switch, see Figure 2, #205 and see column 4, line 6 to column 5, line 36), which has the advantage of fairly allocating network resources (see column 1, lines 26-32). One skilled in the art would have recognized the advantage of the switching controller as taught by Rom et al. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the use of a switching controller as taught by Rom et al. into the invention of Kilkki to achieve the advantage of fairly allocating network resources.

18. Referring to claim 16, Kilkki discloses that the access controller is a media access controller (see column 5, lines 11-24 and 43-44).

19. Referring to claim 17, Kilkki discloses that the classification information includes a priority associated with the inbound packet (see column 5, lines 43-47).

20. Referring to claim 18, Kilkki discloses that the admitting the inbound packet further comprises giving precedence to packets associated with a first priority over packets associated with a second priority (see column 5, lines 43-47 and column 6, lines 40-54).

21. Referring to claim 19, Kilkki discloses storing the inbound packet in a packet buffer associated with the access controller if the packet is admitted (see column 3, lines 50-62 and column 7, lines 28-42).

22. Referring to claim 20, Kilkki discloses that the determining of the congestion status data comprises determining a utilization level of the packet buffer (see column 7, lines 28-42, column 8, lines 23-38, and column 15, line 48 to column 16, line 3).

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23. Referring to claim 21, Kilkki discloses that the admitting of the inbound packet comprises admitting the inbound packet if the utilization level of the packet buffer is lower than a predetermined threshold level (see column 7, lines 28-42, column 8, lines 23-38, and column 15, line 48 to column 16, line 3).

24. Referring to claim 22, Kilkki discloses discarding the inbound packet if the utilization level of the packet buffer is higher than a predetermined threshold level (see column 7, lines 28-42, column 8, lines 23-38, and column 15, line 48 to column 16, line 3).

25. Referring to claim 23, Kilkki discloses discarding the inbound packet based on a discard probability that varies based on the classification information (see column 15, line 48 to column 16, line 3 and column 18, line 57 to column 19, line 12).

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

27. U.S. Patent Application Publication No. 2002/0089929 to Tallegas et al. teaches a network device with a multi-level packet policing program, including an access controller and a packet switching controller.

28. U.S. Patent No. 5,400,329 to Tokura et al. teaches a congestion avoidance mechanism for use between two network devices, including an output control mechanism in the first device and an input control mechanism in the second device.

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29. U.S. Patent No. 5,898,669 to Shimony et al. teaches a method of managing traffic in an ATM network to manage congestion in a network link, including not sending cells in the event that a destination node is not properly receiving them.
30. U.S. Patent No. 6,185,185 to Bass et al. teaches a method of transmitting multicast packets by classifying them and then possibly discarding them before transmitting them.
31. U.S. Patent No. 6,011,778 to Kilkki et al. teaches a method of transmitting cells from one network node to another using traffic measurement.
32. U.S. Patent No. 6,041,039 to Kilkki et al. teaches a method of transmitting cells from one network node to another by using priority level feedback to determine network bandwidth availability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Molinari whose telephone number is (703) 305-5742. The examiner can normally be reached on Monday-Friday 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Michael Joseph Molinari



ALPUS H. HSU
PRIMARY EXAMINER